

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application;

1. - 8. (Cancelled)

9. (Previously Presented) A transmitting apparatus comprising:

a memory adapted to temporarily write digital audio signals inputted thereto to repeatedly implement time axis compression processing, every unit time period, to the digital audio signals thus written to write and read them for a second time;

a compression circuit for implementing compression to the digital audio signal which has been read out from the memory;

a modulation circuit for carrying out modulation of the compressed digital audio signal; and

an infrared light emitting element for converting a modulated signal outputted from the modulation circuit into infrared rays.

10. (Previously Presented) The transmitting apparatus as set forth in claim 9,

wherein data for demodulating the audio signal that a headphone device affixed onto listener designated in advance receives and identifies is added to the signal delivered to the modulation circuit.

11. (Previously Presented) The transmitting apparatus as set forth in claim 9 comprising:

a channel converting circuit for converting audio signals of multi-channel structure into audio signals of 2 channels in which a sound image is localized at a predetermined position of a listener; and a sound field converting circuit for implementing, on a basis of a head portion transfer function from two electroacoustic conversion units up to both ears of the listener, signal processing to audio signals of 2 channels to which channel conversion processing has been implemented by the channel converting circuit.

12. (Previously Presented) The transmitting apparatus as set forth in claim 11,

wherein data for permitting demodulation of the audio signal that a headphone device of listener designated in advance identifies and receives is added to the signal delivered to the modulation circuit.

13. (Previously Presented) A reproducing apparatus provided with a headphone device comprising: a memory adapted to temporarily write digital audio signals inputted thereto to repeatedly implement time axis compression processing, every unit time period, to the digital audio signals written to write and read them for a second time;

a modulation circuit for carrying out modulation of the digital audio signal which has been read out from the memory; and

an infrared light emitting element for converting a modulated signal outputted from the modulation circuit into infrared rays,

the reproducing apparatus comprising:

a light receiving element for receiving the infrared ray;

a demodulation circuit for demodulating the modulated signal outputted from the light receiving element to output a compressed digital audio signal;

an expansion circuit for implementing expansion processing to the compressed digital audio signal for restoration to a digital audio signal which has not undergone compression processing;

a memory for allowing the digital audio signal outputted from the expansion circuit to be repetitive signals to which time axis compression has been implemented every unit time to write signals of unit time period, and to implement thereto time axis expansion processing and defect correction processing of unit time period to carry out write and read operations thereof;

a D/A converter circuit for allowing the digital audio signal which has been read out from the memory to undergo D/A conversion output an analog audio signal; and

an electroacoustic conversion unit supplied with the analog audio signal outputted from the D/A converter.

14. (Previously Presented) The reproducing apparatus provided with the headphone device as set forth in claim 13, wherein

data for designating headphone device is added to the digital audio signal outputted from the demodulation circuit, and processing of the signal can be made only where the data is in correspondence with a designated select condition.

15. (Previously Presented) The reproducing apparatus provided with the headphone device as set forth in claim 13,

wherein digital audio signals outputted from the demodulation circuit are of a multi-channel structure and are converted into audio signals of 2-channels in which a sound image is localized at a predetermined position of a listener, signal processing is carried out on a basis of a head portion transfer function from two electroacoustic conversion units up to both ears of the listener, and the digital audio signal is the time-axis compressed digital audio signal, the reproducing apparatus further comprising:

a time difference additional circuit for providing a time difference with respect to audio signals delivered to the electroacoustic conversion units;

a level difference additional circuit for providing a level difference with respect to the audio signals delivered to the electroacoustic conversion units; and

detecting means for detecting a direction of the head of the listener to control the time difference and the level difference in correspondence with the detected direction of the head of the listener by a detection signal of the detecting means.

16. (Previously Presented) The reproducing apparatus provided with the headphone device as set forth in claim 15, wherein data for designating the headphone device is added to the digital audio signal outputted from the demodulation circuit, and processing of the signal can be made only where the data is in correspondence with a designated select condition.